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AFRL awards Small Business contract to Utica firm

by Fran Crumb, Information Directorate

ROME, N.Y. — The Air Force Research Laboratory (AFRL) Information Directorate has awarded a \$99,039 contract to Integrated Sensors Inc. of Utica for research to enhance the radar detection of ground targets obscured by foliage.

The nine-month agreement, "Foliage Penetration Synthetic Aperture Radar Enhancements," was awarded under the federal government's Small Business Innovative Research (SBIR) program.

"Current radars have an inherent problem with 'seeing' through trees and vegetation that provide cover to vehicles traveling along the roads," said Jon S. Jones, program manager in the directorate's Information and Intelligence Exploitation Division. "The problem with maintaining surveillance on vehicles under these conditions is that they are able to maneuver in ways that are unpredictable — like stopping for periods of

time or turning directions."

"The objective of the Integrated Sensors contract is to investigate radars that are capable of seeing through foliage and use this information to fuse with existing systems leading to a capability to track vehicles through move-stop-move condition within the foliage cover," said Jones.

Two primary modes of radar will be investigated. Synthetic Aperture Radar (SAR) develops radar images of the area for detection of fixed targets, such as vehicles that are not moving, while Ground Moving Target Indication (GMTI) radar develops radar detections of moving targets or vehicles.

"Integrated Sensors engineers will conduct research on algorithms that will fuse those two types of radar into a composite picture that maintains a track of the vehicle through the foliage," said Jones. @